

WE CLAIM

1. A process for the manufacturing of longitudinal profiles (2) such and tongue (2') and groove (2'') on boards (1) wherein the process includes the steps,
 - a) moulding a substantial part of the profile (2) cross-section by means of milling with a milling tool,
 - b) fine moulding undercuts (20) in at least the groove (2') of the board (1) by means of broaching utilising at least one broaching tool (3).
2. A process according to claim 1 wherein the milling tool is adjustably fixed in a conveying machine, which machine feeds the boards (1) past the milling tool during the milling operation.
3. A process according to claim 2 wherein the broaching tool (3) is adjustably fixed in the conveying machine, which machine feeds the board past the broaching tool (3).
4. A process according to claim 1 wherein the process further comprises the step coating of the milled profile section before the fine moulding by broaching.
5. A process according to claim 4 wherein the coating process comprises wax or oil.
6. A process according to claim 4 wherein the coating process comprises a polymeric material such as a thermoplastic polyolefin.
7. A process according to claim 4 wherein the coating process comprises a lacquer such as a UV-curing lacquer.
8. A process according to any of the claims 1 - 3 wherein the broaching tool (3) comprises broaching edges (31), a broaching body (32) and a broaching clamp.
9. A process according to claim 8 wherein the broaching body (32) is provided with internal cooling channels for a cooling media, the cooling media being selected from the group consisting of a gas and a liquid.

10. A process according to claim 9 wherein the broaching body (32) is provided with a temperature sensor used for guiding the cooling.
11. A process according to claim 10 wherein the temperature sensor is an infrared sensor directed towards one or more broaching edges (31).
12. A process according to claim 10 wherein the temperature sensor is a conductive sensor attached to the broaching body (32).
13. A process according to claim 8 wherein the broaching tool (3) is provided with at least one nozzle for blowing air on the broaching edges (31).
14. A process according to claim 8 wherein the broaching tool (3) is provided with an air and dust evacuation duct which evacuates dust and particles from the broaching edges (31).
15. A process according to claim 13 wherein the broaching tool (3) further is provided with an air and dust evacuation duct which evacuates dust and particles from the broaching edges (31).
16. A process according to claim 13 wherein the air blown on the broaching edges (31) pulsates for better cleaning of the broaching edges (31).
17. A process according to claim 8 wherein the front edge portions (31') of the broaching edges (31) are concave.
18. A process according to claim 8 wherein the side edge (31'') portions of the broaching edges (31) are concave.